

## **USB DYNAMIC SERVICE SWITCH FOR DUAL PROCESSOR ARCHITECTURE**

### **ABSTRACT**

USB bus enumeration and configuration switching in a dual-processor  
5 architected device can result in loss of the inter-processor communication link. In  
order to solve this problem, an apparatus, architecture and method for simplifying  
the Universal Serial Bus (USB) service enumeration between two processors in a  
dual-processor architecture device are provided. A USB host (102) is connected  
to a first processor (201) of the dual-processor device (100) via a USB cable  
10 (104). The first processor (201) begins to enumerate services to the connected  
host (102). When the host sends a set\_configuration request (405) to the device  
(100), the device determines whether the first processor (201) and the second  
processor (203) have the same configuration sets. The first processor (201) sends  
a set\_configuration request to the second processor (203) to setup the requested  
15 services in the second processor. If the configuration sets are different then the  
first processor (201) sends one or more set\_interface requests to the second  
processor (203) in which each request turns on a specific service in response.